

ABSTRACT

[0081] A process in which a wafer is exposed to a first chemically reactive precursor dose insufficient to result in a maximum saturated ALD deposition rate on the wafer, and then to a second chemically reactive precursor dose, the precursors being distributed in a manner so as to provide substantially uniform film deposition. The second chemically reactive precursor dose may likewise be insufficient to result in a maximum saturated ALD deposition rate on the wafer or, alternatively, sufficient to result in a starved saturating deposition on the wafer. The process may or may not include purges between the precursor exposures, or between one set of exposures and not another.